

Characterizing the Geometry and Footprint of the DELVE Survey

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What is DELVE?

The DECam Local Volume Exploration Survey (DELVE) aims to study the faint and distant galaxies which are heavily dominated by dark matter. By studying these galaxies, DELVE will be instrumental in further understanding dark matter.

What I Worked On

My main job was to work on the survey geometry characterization of DELVE, specifically to use maps to see where we have data, and where we don't. This was done through use of a program called 'Decasu', which generated accurate maps based on the data collected.

Moving Forward

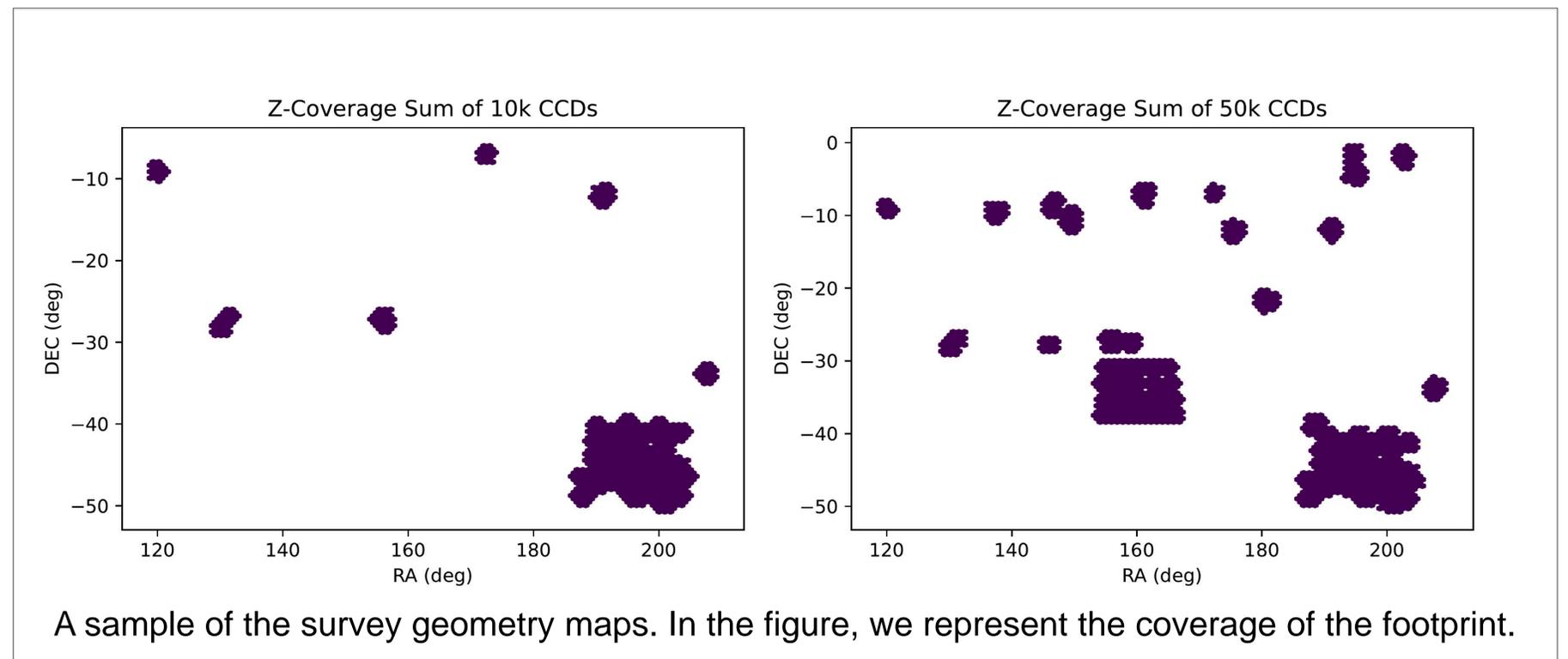
We still wonder, what will be the best observing conditions for accurate galaxy count. What conditions will be best for a final catalogue? Once we can determine these patterns in observing conditions, we will be able to decrease their overall influence in order to build the most accurate catalogue possible.

Project Goals

As a broad goal, we want to observe the angular distribution of galaxies in the sky in order to obtain information about dark energy and dark matter.

Survey Geometry Goals

We know that actual number of galaxies in a given part of the sky does not depend on the nightly observing conditions, so we must be carefully and accurately measured to avoid any confusion. We'll need as much information as possible about nightly observing conditions in order to follow their patterns and reduce their contamination with data taken regarding actual galaxies.



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